

ABSTRACT

The present invention is provided to form a floating gate of a flash memory device capable of restricting a thickness of a buffer oxide film to a thickness less than 50 Å to minimize increment in a thickness due to a wall oxidation process in the case of depositing the buffer oxide film prior to depositing the first polysilicon film and the pad nitride film, and reducing a thickness of the first polysilicon film with an HF dip time minimized in a pre-treatment cleaning process prior to depositing the second polysilicon film, and protecting the first polysilicon film from being attacked in a pad nitride film strip process, by removing at least 50% of the buffer oxide film in the pad nitride film strip process.